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WHAT IS CLAIMED IS:

5           1.    A drilling system comprising:  
            a first rotatable tubular connector;  
            a second non-rotatable tubular connector;  
            a washpipe assembly comprising at least one dynamic seal  
            and defining a fluid conduit having at one end a first mating  
10     connector and at another end a second mating connector  
            designed to interconnect with the first and second tubular  
            connectors; and

            a controllable torque driver arranged to mechanically  
            engage the washpipe assembly such that fluid connections are  
15     made between the first mating connector and the first tubular  
            connector, and the second mating connector and the second  
            tubular connector.

20           2.    The drilling system of claim 1, wherein the  
            controllable torque driver is selected from the group  
            consisting of a torque wrench, a torque drive motor, a  
            hydraulic cylinder, and a torqueing sleeve.

25           3.    The drilling system of claim 2, wherein the torque  
            drive motor is selected from the group consisting of an air  
            motor, a hydraulic motor, and an electric motor.

30           4.    The drilling system of claim 1, further comprising a  
            positioning mechanism for moving the washpipe assembly between  
            a washpipe assembly connecting position and a washpipe  
            assembly replacement position.

35           5.    A drilling system comprising:  
            a first rotatable tubular connector;  
            a second non-rotatable tubular connector;

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a washpipe assembly comprising at least one dynamic seal and defining a fluid conduit having at one end a first geared nut and at another end a second geared nut designed to interconnect with the first and second tubular connectors;

a drive shaft having a pinion gear for engaging the first and second geared nuts; and

a controllable and reproducible torque driver attached to the drive shaft, such that fluid connections are made between the first geared nut and the first tubular connector, and the second geared nut and the second tubular connector by manipulation of the drive shaft.

6. The drilling system of claim 5, wherein the controllable and reproducible torque driver is selected from the group consisting of a torque wrench, a torque drive motor, a hydraulic cylinder, and a torqueing sleeve.

7. The drilling system of claim 6, wherein the torque drive motor is selected from the group consisting of an air motor, a hydraulic motor, and an electric motor.

8. The drilling system of claim 5, further comprising a positioning mechanism for moving the washpipe assembly between a washpipe assembly connecting position and a washpipe assembly replacement position.

9. The drilling system of claim 8, wherein the positioning mechanism comprises a positioning yoke and a pivot link.

10. The drilling system of claim 9, wherein the pivot link comprises a jack nut and a jack screw that combine to allow the positioning yoke to move vertically along a path

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defined by the length of the jack screw.

5           11. The drilling system of claim 5, wherein the drive shaft pinion gear is movable along the drive shaft, such that the pinion may be brought into and out of engagement with each of the first geared nut and the second geared nut.

10           12. The drilling system of claim 11, wherein a hydraulic cylinder moves the drive shaft pinion gear along the drive shaft, such that the pinion may be brought into and out of engagement with each of the first geared nut and the second geared nut.

15           13. The drilling system of claim 11, wherein a pneumatic means moves the drive shaft pinion gear along the drive shaft, such that the pinion may be brought into and out of engagement with each of the first geared nut and the second geared nut.

20           14. The drilling system of claim 5, wherein the first rotatable tubular connector is a main shaft connected to a drill string, and the second non-rotatable tubular connector is a gooseneck assembly connected to a drilling mud supply.

25           15. A drilling system comprising:  
a first rotatable tubular connector;  
a second non-rotatable tubular connector;  
a washpipe assembly comprising at least one dynamic seal  
30 and defining a fluid conduit having at one end a first geared nut and at another end a second geared nut designed to interconnect with the first and second tubular connectors;  
a controllable and reproducible torque driver for  
transmitting a torque from the first rotatable tubular  
35 connector to the washpipe assembly.

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16. The drilling system of claim 15, wherein the  
controllable and reproducible torque driver comprises a  
torqueing sleeve for engaging the first rotatable tubular  
connector and a wrench connected to the torqueing sleeve for  
engaging the washpipe assembly.

17. The drilling system of claim 15, wherein the  
controllable and reproducible torque driver comprises a  
torqueing sleeve and a wrench that are movable from a first  
position to a second position, wherein in the first position  
the torqueing sleeve engages the first rotatable tubular  
connector and the wrench engages the first geared nut to  
transfer a torque from the first rotatable tubular connector  
to the first geared nut to connect the washpipe assembly to  
the first rotatable tubular connector, and wherein in the  
second position the torqueing sleeve engages the washpipe  
assembly and the wrench engages the second geared nut to  
transfer a torque from the first rotatable tubular connector  
to the second geared nut to connect the washpipe assembly to  
the second non-rotatable tubular connector.

18. A method of connecting a washpipe assembly in a  
drill system comprising:

providing a first rotatable tubular connector;  
providing a second non-rotatable tubular connector;  
providing a washpipe assembly comprising at least one  
dynamic seal and defining a fluid conduit having at one end a  
first mating connector and at another end a second mating  
connector designed to interconnect with the first and second  
tubular connectors; and

applying a controllable torque to the first and second  
mating connectors such that fluid connections are made between  
the first mating connector and the first tubular connector,

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and the second mating connector and the second tubular connector.

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19. The method of claim 18, further comprising providing a controllable torque driver for applying the controllable torque to the first and second connectors, wherein the controllable torque driver is selected from the group  
10 consisting of a torque wrench, a torque drive motor, a hydraulic cylinder, and a torquing sleeve.

20. The method of claim 18, further comprising providing a controllable torque drive motor for applying the  
15 controllable torque to the first and second connectors, wherein the controllable torque drive motor is selected from the group consisting of an air torque drive motor, a hydraulic torque drive motor, and an electric torque drive motor.

20 21. The method of claim 18, further comprising providing a positioning mechanism for moving the washpipe assembly between a washpipe assembly connecting position and a washpipe assembly replacement position.

25 22. A method of connecting a washpipe assembly in a drill system comprising:

providing a first rotatable tubular connector;  
providing a second non-rotatable tubular connector;  
providing a washpipe assembly comprising at least one  
30 dynamic seal and defining a fluid conduit having at one end a first geared nut and at another end a second geared nut designed to interconnect with the first and second tubular connectors;

providing a drive shaft having a pinion gear for engaging  
35 the first and second geared nuts; and

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applying a controllable and reproducible torque to the drive shaft, such that fluid connections are made between the first geared nut and the first tubular connector, and the second geared nut and the second tubular connector by manipulation of the drive shaft.

23. The method of claim 22, further comprising providing a controllable and reproducible torque driver for applying the controllable and reproducible torque to the drive shaft, wherein the controllable and reproducible torque driver is selected from the group consisting of a torque wrench, a torque drive motor, a hydraulic cylinder, and a torquing sleeve.

24. The method of claim 22, further comprising providing a controllable and reproducible torque drive motor for applying the controllable and reproducible torque to the drive shaft, wherein the controllable and reproducible torque drive motor is selected from the group consisting of an air torque drive motor, a hydraulic torque drive motor, and an electric torque drive motor.

25. The method of claim 22, further comprising providing a positioning mechanism for moving the washpipe assembly between a washpipe assembly connecting position and a washpipe assembly replacement position.

26. The method of claim 25, wherein the positioning mechanism comprises a positioning yoke and a pivot link.

27. The method of claim 26, wherein the pivot link comprises a jack nut and a jack screw that combine to allow the positioning yoke to move vertically along a path defined

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by the length of the jack screw.

5           28. The method of claim 22, further comprising moving the drive shaft pinion gear along the drive shaft, such that the pinion may be brought into and out of engagement with each of the first geared nut and the second geared nut.

10           29. The method of claim 28, further comprising providing a hydraulic cylinder to move the drive shaft pinion gear along the drive shaft, such that the pinion may be brought into and out of engagement with each of the first geared nut and the second geared nut.

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          30. The method of claim 28, further comprising providing a pneumatic means to move the drive shaft pinion gear along the drive shaft, such that the pinion may be brought into and out of engagement with each of the first geared nut and the  
20 second geared nut.

          31. The method of claim 22, wherein the first rotatable tubular connector is a main shaft connected to a drill string, and the second non-rotatable tubular connector is a gooseneck  
25 assembly connected to a drilling mud supply.

          32. A method of connecting a washpipe assembly in a drill system comprising:

          providing a first rotatable tubular connector;  
30           providing a second non-rotatable tubular connector;  
          providing a washpipe assembly comprising at least one dynamic seal and defining a fluid conduit having at one end a first geared nut and at another end a second geared nut designed to interconnect with the first and second tubular  
35 connectors; and

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transmitting a torque from the first rotatable tubular connector to the washpipe assembly, such that fluid connections are made between the first geared nut and the first tubular connector, and the second geared nut and the second tubular connector.

33. The method of claim 32, wherein transmitting a torque from the first rotatable tubular connector to the washpipe assembly comprises transmitting a torque from the first rotatable tubular connector to the first geared nut, such that a fluid connect is made between the first geared nut and the first tubular connector; and transmitting a torque from the first rotatable tubular connector to the second geared nut, such that a fluid connect is made between the second geared nut and the second tubular connector.

34. The method of claim 33, wherein transmitting a torque from the first rotatable tubular connector to the first geared nut comprises connecting a torqueing sleeve to the first rotatable tubular connector and connecting a wrench that is attached to the torqueing sleeve to the first geared nut; and wherein transmitting a torque from the first rotatable tubular connector to the second geared nut comprises connecting the torque sleeve to the washpipe assembly, when the washpipe assembly is connected to the first rotatable tubular connector and connecting the wrench to the second geared nut.

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35. A drilling system comprising:  
a first tubular connector;  
a second tubular connector;  
a washpipe assembly comprising at least one dynamic seal  
and defining a fluid conduit having a first mating connector

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and a second mating connector; and

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a controllable torque driver arranged to mechanically engage the washpipe assembly such that fluid connections are made between the first mating connector and the first tubular connector, and the second mating connector and the second tubular connector.

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